

Australian Veterinary Prescribing Guidelines

Clinic Stewardship Champion:

For more information and further resources visit www.fvas.unimelb.edu.au/vetantibiotics

Dogs and Cats

SURGERY

CLEAN SURGERY, NO MITIGATING FACTORS

FIRST LINE: NONE.

MITIGATING FACTORS: Amoxicillin or 1st generation cephalosporin.

MITIGATING FACTORS:

- Hypotension.
- Surgical duration >90 mins.
- Obese dogs.
- Endocrine disorder.
- Bacterial dermatitis.
- Surgery involves implant.

DURATION OF THERAPY: Stop within 24 hours (except dermatitis - treat until cured).

CLEAN CONTAMINATED SURGERY

Enterotomy, cystotomy, etc.

FIRST LINE: Amoxicillin or 1st generation cephalosporin.

DURATION OF THERAPY: Stop within 24 hours.

CONTAMINATED SURGERY

Pyometra, prostatic abscess, significant bowel leakage.

FIRST LINE: Amoxicillin or 1st generation cephalosporin and gentamicin and metronidazole.

DURATION OF THERAPY: No evidence, 24-48 hours is common in human medicine.

DIRTY SURGERY

Use antimicrobial appropriate for infection (ideally based on culture and sensitivity) and treat until cured.

TIMING IV ANTIMICROBIALS

30-60 mins prior to surgery, repeat cefazolin every 4 hours, amoxicillin every 2 hours.

SC antimicrobials 2 hours prior to surgery.

CLINIC POLICY

CLEAN:

CLEAN CONTAMINATED:

CONTAMINATED:

DENTAL SURGERY

ROUTINE DENTALS: NO ANTIMICROBIALS

DENTALS WITH EXTRACTIONS:

Bacteraemia expected for approximately 20 mins.

Prophylactic antimicrobials only in patients that can not tolerate transient bacteraemia (~20 mins). Recommended for:

- Immunosuppressed.
- Geriatrics.
- Patients with severe heart disease.
- Patients with systemic illness.

FIRST LINE: Amoxicillin IV 30 mins (2 hours if IM/SC) prior to surgery, or clindamycin.

DURATION OF THERAPY: One dose only or 2nd dose 6 hours later.

CLINIC POLICY

FIRST LINE:

SECOND LINE:

ACUTE GASTROENTERITIS

TREATMENT

Antimicrobials only when signs of sepsis or confirmation of specific bacterial enteropathogens.

FIRST LINE: NONE.

SPECIFIC CLOSTRIDIAL ENTEROPATHOGENS: Metronidazole.

SEPSIS: Amoxicillin + gentamicin + metronidazole.

CLINIC POLICY

FIRST LINE:

SECOND LINE:

UPPER RESPIRATORY DISEASE

FELINE RHINITIS ≤ 10 days

Limited benefit of cytology or culture & susceptibility testing.

SEROUS DISCHARGE: NONE.

MUCOPURULENT OR PURULENT BUT SYSTEMICALLY WELL: NONE.

MUCOPURULENT OR PURULENT BUT SYSTEMICALLY UNWELL: Doxycycline.

DURATION OF THERAPY: 7-10 days.

FELINE RHINITIS > 10 days

Antimicrobials should be selected based on culture and susceptibility testing. No evidence that 3rd generation cephalosporins or fluoroquinolones are more effective than doxycycline or amoxicillin.

DURATION OF THERAPY: Up to 1 week past resolution of clinical signs.

CLINIC POLICY

ACUTE RHINITIS:

CHRONIC RHINITIS:

CANINE INFECTIOUS RESPIRATORY DISEASE COMPLEX

Interpreting cytology and culture and susceptibility testing difficult.

NO EVIDENCE OF PNEUMONIA & SYSTEMICALLY WELL: NONE.

NO EVIDENCE OF PNEUMONIA & SYSTEMICALLY UNWELL: Doxycycline or amoxicillin.

DURATION OF THERAPY: 7-10 days.

Usually responds quickly, consider further work-up if poor response.

CLINIC POLICY

FIRST LINE:

SECOND LINE:

OTITIS EXTERNA

DIAGNOSTICS

Cytological evaluation should always be performed to identify pathogens and inflammatory cells.

Culture and susceptibility testing should be performed when:

- Rods are present on cytology.
- Lack of response to antimicrobial therapy.
- Chronic otitis.

Ensure tympanic membrane is intact, ear flushing under GA may be necessary. *Collect specimens before flushing.*

If recurrent underlying disease should be investigated (foreign body, atopy, anatomical anomaly).

TREATMENT

Ear flushing (under GA if necessary): warm sterile saline under controlled pressure.

FIRST LINE: Cocci only OR cocci & rods:

- Intact tympanic membrane: ear flushing, topical therapy with fucidic acid and framycetin combination or gentamicin.
- Perforated tympanic membrane: ear flushing and non-ototoxic cleaners, avoid topical antimicrobials.

DURATION OF THERAPY: 10-14 days.

Rods only:

- Intact tympanic membrane: ear flushing, topical therapy with polymixin B, gentamicin or marbofloxacin.
- Perforated tympanic membrane: ear flushing and non-ototoxic cleaners, avoid topical antimicrobials.

DURATION OF THERAPY: 10-14 days.

Systemic antimicrobials – often ineffective and usually only indicated when middle or inner ear is involved. Base therapy on culture and susceptibility.

Non-ototoxic agents: chlorhexidine, Tris-EDTA.

Ototoxic agents: polymixin B, aminoglycosides.

Less ototoxic agents: fluoroquinolones (marbofloxacin, ciprofloxacin).

CLINIC POLICY

FIRST LINE:

SECOND LINE:

PNEUMONIA

DIAGNOSTICS

Tracheal for cytology and culture & susceptibility testing is strongly recommended prior to antimicrobial therapy.

Consider underlying disease process that predisposed to pneumonia.

Consult with microbiologist to interpret results (airway contaminants possible).

TREATMENT

FIRST LINE: Mild: Doxycycline.

MILD ASPIRATION: No treatment or amoxicillin or 1st generation cephalosporin.

PNEUMONIA & SEPSIS: Enrofloxacin and amoxicillin pending culture and susceptibility results. Consider metronidazole or clindamycin if anaerobes are suspected.

DURATION OF THERAPY: Review after 10-14 days.

CLINIC POLICY

MILD:

MILD ASPIRATION:

PNEUMONIA & SEPSIS:

PYODERMA

DIAGNOSTICS

Cytological evaluation is needed to identify the existence of a bacterial pyoderma.

Use adhesive tape, direct smear, or FNA (for pustules or nodules).

Culture and susceptibility testing recommended in all cases of bacterial pyoderma in which systemic antimicrobials are being considered.

Also strongly encouraged when:

- Rods are present on cytology.
- Lack of response to antimicrobial therapy.
- New lesions develop during treatment.
- Chronic or recurrent pyoderma.

Consider underlying disease.

TREATMENT

Surface, superficial, and localised deep pyoderma.

FIRST LINE: Topical antiseptic shampoo treatment, allow contact with skin for 5-10 mins.

SYSTEMIC ANTIMICROBIALS: In cases where large areas of body affected or when hair follicles and surrounding skin involved: 1st generation cephalosporins or amoxicillin/clavulanate.

Chlorhexidine shampoo twice weekly and chlorhexidine spray daily is comparable to amoxicillin/clavulanate.

Re-evaluate <3 weeks and before end of treatment course.

CLINIC POLICY

FIRST LINE:

SECOND LINE:

ACUTE HAEMORRHAGIC DIARRHOEA

3 CATEGORIES

1. Mild bloody diarrhoea, normovolaemic and systemically well.
2. Severe bloody diarrhoea with hypovolaemia but not septic.
3. Severe bloody diarrhoea with hypovolaemia and sepsis.

FIRST LINE:

GROUP 1: No antimicrobials.

GROUP 2: Fluid therapy and monitor for sepsis.

GROUP 3: Fluid therapy and amoxicillin + gentamicin + metronidazole.

CLINIC POLICY

GROUP 1:

GROUP 2:

GROUP 3:

LOWER URINARY TRACT DISEASE

DIAGNOSTICS

Urinalysis and cytological evaluation of stained and unstained urine sediment.

Culture and susceptibility testing recommended in all cases (collect via cystocentesis, refrigerate, culture within 24 hrs).

If complicated, consider underlying disease.

TREATMENT

REMEMBER the majority of cats (particularly young cats) with lower urinary tract signs **do not** have bacterial cystitis.

INTACT MALE DOGS: Cystitis rare, consider bacterial prostatitis.

IDIOPATHIC CYSTITIS OF CATS: No antimicrobial therapy.

SPORADIC (UNCOMPLICATED) CYSTITIS IN DOGS AND CATS: Amoxicillin or trimethoprim/sulphonamide (pending culture and susceptibility testing).

DURATION OF THERAPY: 3-5 days.

Should respond in 48h, further investigation if not responding. DO NOT change antimicrobials empirically.

If responding to therapy and culture results indicate resistance, don't change antimicrobials.

Urine culture should NOT be performed after resolution of clinical signs.

RECURRENT (COMPLICATED) CYSTITIS IN DOGS AND CATS:

Amoxicillin or trimethoprim/sulphonamide (pending culture and susceptibility testing). Consider work-up for co-morbidities.

DURATION OF THERAPY: Goal is for clinical cure NOT microbiological cure. If reinfection, 3-5 days based on susceptibility testing.

If persistent relapsing infections or urinary tract abnormalities 7-14 days. See website for indications for re-culture.

Side effects can occur with long term trimethoprim/sulphonamide.

No evidence to support use of antimicrobials before, during or after removal of an indwelling urinary catheter in dogs or cats. Studies suggest this may promote resistance. Culture urine before starting treatment.

CLINIC POLICY

FIRST LINE:

SECOND LINE:

CELLULITIS, ABSCESS & TRAUMATIC WOUNDS

DIAGNOSTICS

History, clinical presentation & cytology.

Culture and susceptibility testing recommended when: Lack of response to antimicrobial therapy.

If doesn't respond consider underlying disease.

TREATMENT

FIRST LINE: Draining & flushing alone.

Systemic antimicrobials only when:

- Systemically unwell.
- Diffuse tissue involvement.
- Potential joint involvement.
- Immunosuppressed patient.

DURATION OF THERAPY: Amoxicillin or ampicillin for 5-10 days.

CLINIC POLICY

FIRST LINE:

SECOND LINE:

